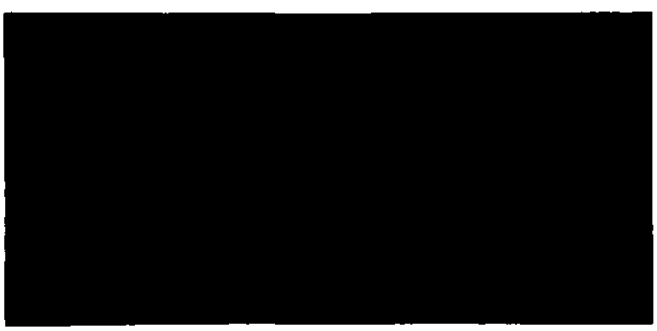

MAFF Ministry of Agriculture Fisheries and Food

# AGRICULTURAL LAND CLASSIFICATION
# LEEDS UDP DAISY HILL FARM
# MORLEY
# WEST YORKSHIRE
# JANUARY 1995

ADAS
Leeds Statutory Group

Job No:- 24/95
MAFF Ref:- EL 49/13
Commission No:- 1581

# SUMMARY

A detailed Agricultural Land Classification survey of 16.7 ha of land at Daisy Hill Farm, ½ km north east of Morley, was carried out as part of the Leeds UDP in January 1995. At the time of the survey 15.5 ha of the land was in agricultural use and 3.0 ha falls into Subgrade 3a. Soils consist of well drained (Wetness Class I), medium clay loam topsoils, over medium sandy loam subsoils, in turn over weathering sandstone. Moderate soil droughtiness limitations restrict this land to Subgrade 3a.

11.3 ha of land falls into Subgrade 3b. Two distinct soil types occur within this Subgrade. Soils to the east consist of well drained (Wetness Class I) medium clay loam topsoils over medium sandy loam subsoils over weathering sandstone. Although soil physical characteristics conform to Subgrade 3a this land is limited to Subgrade 3b by a gradient of 10°. The remaining land consists of medium clay loam and heavy silty clay loam topsoils over poorly drained (Wetness Class IV) clay subsoils. Severe soil wetness and topsoil workability restrictions along with a gradient of 10° limit this land to Subgrade 3b.

The remaining agricultural land 1.2 ha falls into Grade 4. Although soil physical characteristics are similar to Subgrade 3a soils on this site, a gradient of 15° limits this land to Grade 4. The remainder of the site 1.2 ha (Non Agricultural) consists of shrubs and trees.

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# AGRICULTURAL LAND CLASSIFICATION REPORT ON LAND AT DAISY HILL FARM, MORLEY, WEST YORKSHIRE (LEEDS UDP)

## 1. INTRODUCTION AND SITE CHARACTERISTICS

### 1.1 Location and Survey Methods

The site lies approximately ½ km north east of Morley, and is centred around National Grid Reference SE 275 285. The site covers a total of 16.7 ha. Survey work was carried out in January 1995 when the soils were examined by hand auger borings at 100 m intervals predetermined by the National Grid. Two soil pits were dug to allow profiles to be described in greater detail. The land quality was assessed using the methods described in "Agricultural Land Classification of England and Wales. Revised guidelines and criteria for grading the quality of agricultural land". (MAFF, 1988).

### 1.2 Land Use and Relief

At the time of survey 15.5 ha of the site were under permanent grass and arable, with the remaining 1.2 ha being Non Agricultural. The site is level to moderately steeply sloping (0-15°) and lies between 70 m and 100 m AOD.

### 1.3 Climate

| | |
|---|---|
| Grid Reference | : SE 275 285 |
| Altitude (m) | : 80 |
| Accumulated Temperature above 0°C (January - June) | : 1330 day °C |
| Average Annual Rainfall (mm) | : 690 |
| Climatic Grade | : 1 |
| Field Capacity Days | : 170 |
| Moisture Deficit (mm) Wheat | : 95 |
| Moisture Deficit (mm) Potatoes | : 83 |

## 1.4 Geology, Soils and Drainage

The site is underlain by Coal Measures, consisting of interbedded fine, often silty sandstones and shales. There is no drift cover and soils on the site are derived either from weathering sandstone, or shale. Soils formed over sandstone are well drained (Wetness Class I) with medium clay loam topsoils over medium and fine sandy loam subsoils. Weathering sandstone bedrock occurs at depths of between 55 cm to 70 cm. Soils formed over weathering shale are poorly drained (Wetness Class IV) and consist of medium clay loam or heavy silty clay loam topsoils over gleyed slowly permeable clay subsoils.

## 2. AGRICULTURAL LAND CLASSIFICATION

The ALC grades occurring on this site are as follows:

| Grade/Subgrade | Hectares | Percentage of Total Area |
|---|---|---|
| 1 | | |
| 2 | | |
| 3a | 3.0 | 18.0 |
| 3b | 11.3 | 67.6 |
| 4 | 1.2 | 7.2 |
| 5 | | |
| (Sub total) | (15.5) | (92.8) |
| Urban | | |
| Non Agricultural | 1.2 | 7.2 |
| Woodland - Farm | | |
| - Commercial | | |
| Agricultural Buildings | | |
| Open Water | | |
| Land not surveyed | | |
| (Sub total) | (1.2) | (7.2) |
| TOTAL | 16.7 | 100 |

2.1 Subgrade 3a

Land within this Subgrade occurs in the central area of the site. Soils generally consist of very slightly stony medium clay loam topsoils over well drained (Wetness Class I) very slightly stony medium sandy loam subsoils, over weathering medium sandstone between 55cm and 60cm depth. These soils are restricted to Subgrade 3a by moderate soil droughtiness.

2.2 Subgrade 3b

The majority of the site falls within this Subgrade. Two distinct soil types occur within this Subgrade. Soils to the west of the site consist of very slightly stony medium clay loam topsoils over well drained (Wetness Class I) very slightly stony medium sandy loam subsoils, over medium weathering sandstone at 60 cm depth.

Soil physical characteristics conform to Subgrade 3a due to moderate soil droughtiness restrictions. However this area is restricted to Subgrade 3b by gradient restriction of 9°.

The remaining Subgrade 3b land mainly consists of very slightly stony medium clay loam or heavy silty clay loam topsoils over poorly drained (Wetness Class IV) gleyed, slowly permeable clay subsoils. Slowly permeable layers occur within 40 cm depth and soils are limited to Subgrade 3b by severe soil wetness and topsoil workability restrictions. Gradient restrictions of 10° also apply to some land within this area.

2.3 Grade 4

The remaining agricultural land falls into this grade. Soil physical characteristics are similar to the Subgrade 3a soils, however this area is limited to Grade 4 by a gradient restriction of 15°.

2.4 Non Agricultural

This category consists of 3 areas dense scrub and trees in the south, the north east and the centre of the site.

MAP